

WHAT IS CLAIMED IS

1. An electromagnetic device used in oil, comprising:

a coil including a conductor coated with an outer coating and wound around a bobbin; and

a coil terminal electrically connected to said conductor at an end part thereof which is led out from said coil, the outer coating at said end part of said conductor being removed,

at least one of said coil terminal and said end part is coated with a protective film, respectively, made of a material having low permeability to elemental sulfur and sulfur compounds.

2. An electromagnetic device used in oil, comprising:

a coil including a conductor coated with an outer coating and wound around a bobbin; and

a coil terminal electrically connected to said conductor at an end part thereof which is led out from said coil, the outer coating at said end part of said conductor being removed,

wherein at least one of said coil terminal and said end part is coated with an overcoat made of a resin having low permeability to elemental sulfur and sulfur compounds.

3. An electromagnetic device according to Claim 1, wherein said protective film is coated with a overcoat made of a resin having low permeability to elemental sulfur and sulfur compounds.

4. An electromagnetic device according to Claim 1, wherein said protective film is composed of a high-temperature solder.

5. An electromagnetic device according to Claim 2, wherein said overcoat comprises a thermoset epoxy resin.
6. An electromagnetic device according to Claim 2, wherein said overcoat comprises a thermoset modified-phenol resin.